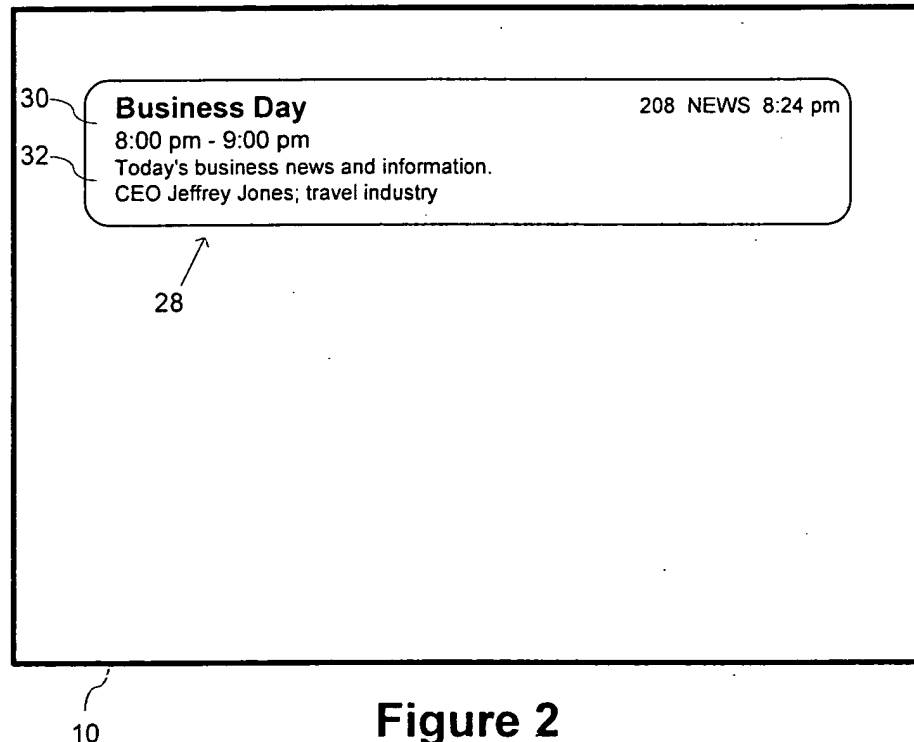


24	<b>Business Day</b> Mon 9/22 8:00 pm - 9:00 pm			208 NEWS 8:24 pm	22
26	Today's business news and information. CEO Jeffrey Jones; travel industry				
	Mon 9/22	8:00 pm	8:30 pm	9:00 pm	20
	204 SPRT	Sports Central		NFL Preview	14
	208 NEWS	Business Day		News	
	209 HOME	Design at Home		Decorating	
	243 LA 13	Giants @ Dodgers		Postgame Show	
	254 LA 24	Business Report	Today in Politics	Roundtable	
	258 LA 28	Nexus		Natural World	
	280 LA 50	Auto World	Sound Check	The Movie Critics	
18	288 LA 58	Collector's Hour		Investigation	16

**Figure 1**  
**Prior Art**



**Figure 2**  
**Prior Art**

INTERACTIVE PROGRAM GUIDES PROVIDING PROGRAM SEGMENT  
INFORMATION

Inventors: Gil Gavriel DUDKIEWICZ et al.

Attorney: Ronald Coslick – 051448-0209

FOLEY & LARDNER – (310) 277-2223

Sheet 2 of 19

<b>Program identifier:</b>	762645819.0405
<b>Program title:</b>	Business Day
<b>Type:</b>	Series
<b>Genre:</b>	News
<b>Series description:</b>	Today's business news and information
<b>Program description:</b>	CEO Jeffrey Jones; travel industry
<b>Channel:</b>	News Network
<b>Date:</b>	09/22/2003
<b>Time:</b>	8:00 pm
<b>Duration:</b>	60 min
<b>Rating:</b>	General
<b>Language:</b>	English
<b>Alternate language:</b>	Spanish
<b>Closed caption:</b>	Yes
<b>Audio type:</b>	Stereo

Conventional program metadata

**Figure 3**  
**Prior Art**

INTERACTIVE PROGRAM GUIDES PROVIDING PROGRAM SEGMENT  
INFORMATION

Inventors: Gil Gavriel DUDKIEWICZ et al.

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FOLEY & LARDNER – (310) 277-2223

Sheet 3 of 19

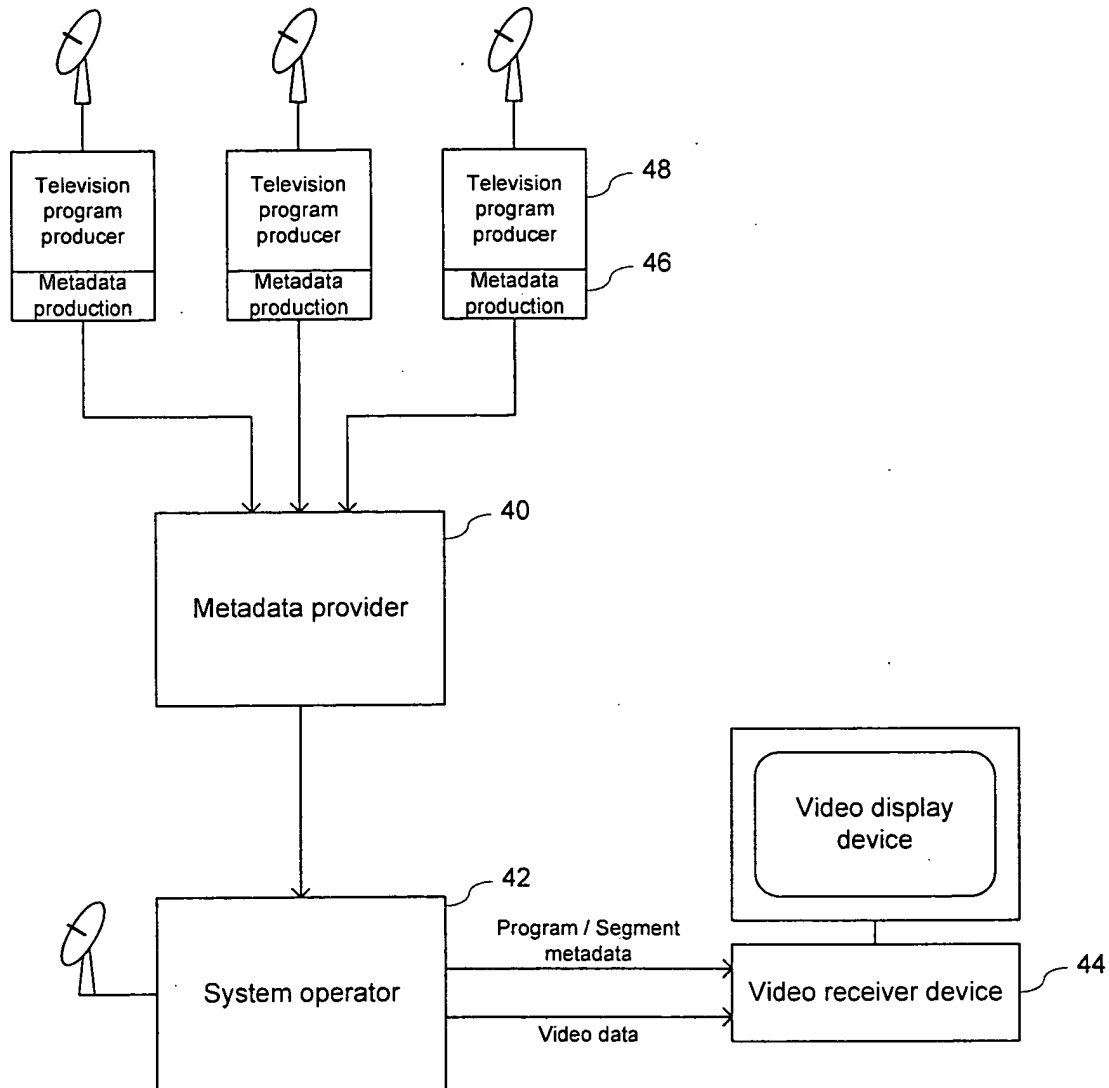
<b>Program identifier:</b>	762645819.0405
<b>Program title:</b>	Business Day
<b>Program description:</b>	Today's business news and information
<b>Channel:</b>	News Network
<b>Date:</b>	09/22/2003
<b>Time:</b>	8:00 pm
<b>Duration:</b>	60 min
<b>Rating:</b>	General
<b>Language:</b>	English
<b>Alternate language:</b>	Spanish
<b>Closed caption:</b>	Yes
<b>Audio type:</b>	Stereo
<b>Categories:</b>	news,8; business,9; investment,8; ...
<b>Keywords:</b>	Federal Reserve; interest rates; ...
<b>Actors:</b>	
<b>Director:</b>	

Program metadata

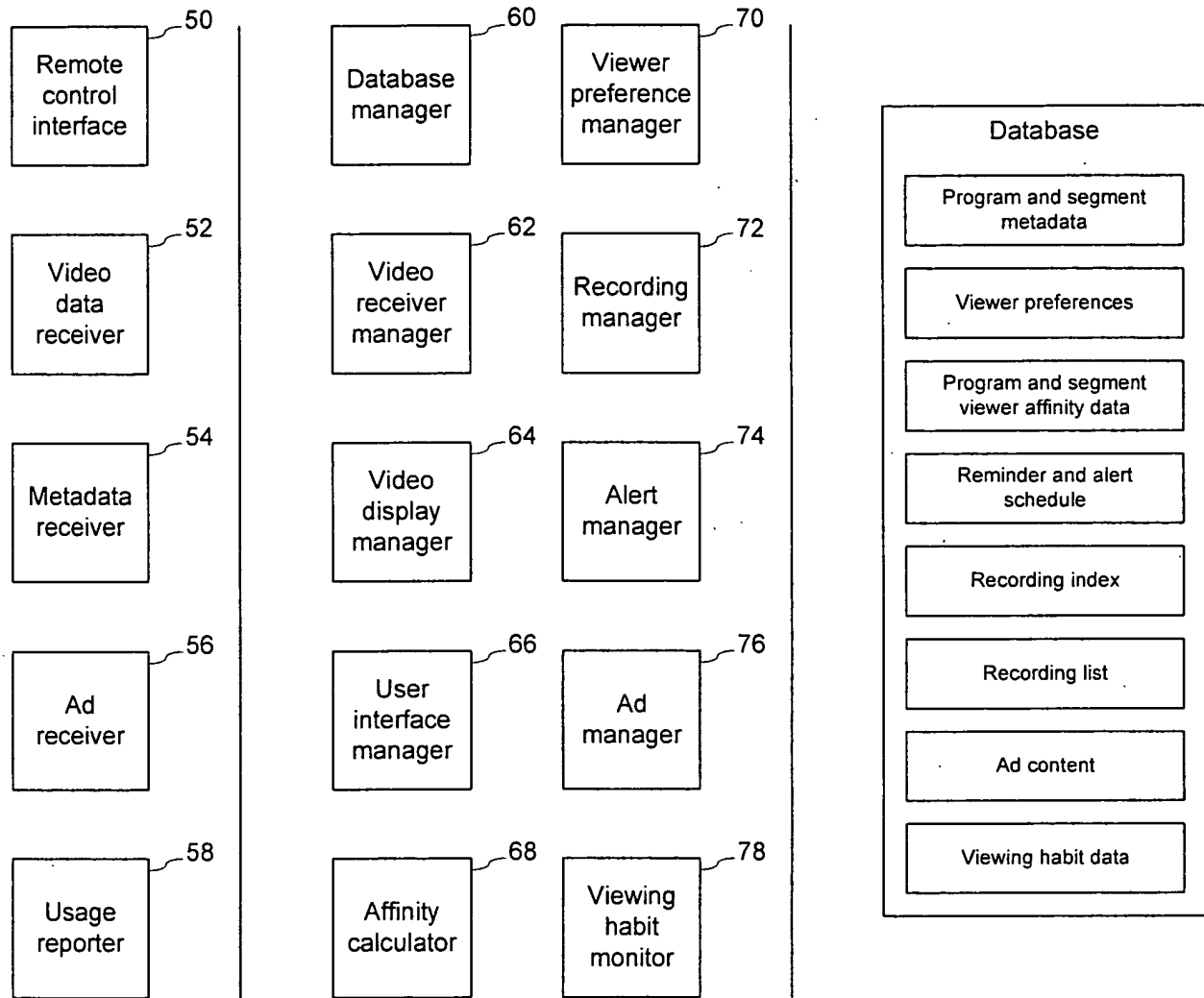
<b>Program identifier:</b>	762645819.0405
<b>Program title:</b>	Business Day
<b>Segment identifier:</b>	762645819.0405.0004
<b>Segment title:</b>	Earnings reports
<b>Segment description:</b>	IBM, Dell, Cisco; analyst comments
<b>Channel:</b>	News Network
<b>Date:</b>	09/22/2003
<b>Time:</b>	8:22 pm
<b>Duration:</b>	8 min
<b>Rating:</b>	General
<b>Language:</b>	English
<b>Alternate language:</b>	Spanish
<b>Closed caption:</b>	Yes
<b>Audio type:</b>	Stereo
<b>Categories:</b>	news,8; business,9; earnings,10; technology,7; ...
<b>Keywords:</b>	IBM; Dell; Cisco; analyst; ...
<b>Actors:</b>	
<b>Director:</b>	

Segment metadata

Figure 4



**Figure 5**



**Figure 6**

## User Command

## Device Response

Display guide	<ul style="list-style-type: none"><li>▪ Retrieve metadata objects within a given time and channel range</li><li>▪ Assemble and display guide:<ul style="list-style-type: none"><li>▪ form program / segment grid</li><li>▪ display cursor in current program / segment in grid</li><li>▪ display program description in program window</li><li>▪ display segment description in segment window</li></ul></li></ul>
Move cursor	<ul style="list-style-type: none"><li>▪ Retrieve additional metadata objects and update grid, if necessary</li><li>▪ Display cursor in new program/segment in grid</li><li>▪ Update contents of program and segment windows</li></ul>
Select program or segment	<ul style="list-style-type: none"><li>▪ If the cursor is located on a current program or segment, tune to the channel of the program or segment</li><li>▪ If the cursor is on a future program or segment:<ul style="list-style-type: none"><li>▪ if the cursor is on a segment, display option to remind for whole program or segment only, and receive selection</li><li>▪ schedule reminder for segment or program</li></ul></li></ul>
Record	<ul style="list-style-type: none"><li>▪ If the cursor is on a current program or segment<ul style="list-style-type: none"><li>▪ if the cursor is on a segment, display option to record whole program or segment only and receive selection</li><li>▪ begin recording</li></ul></li><li>▪ If the cursor is on a future program or segment:<ul style="list-style-type: none"><li>▪ if the cursor is on a segment, display option to record whole program or segment only and receive selection</li><li>▪ schedule recording</li></ul></li><li>▪ If the cursor is on a program or segment has already aired and that is buffered<ul style="list-style-type: none"><li>▪ if the cursor is on a segment and the whole program is buffered, display option to store the whole program or segment only and receive selection</li><li>▪ store whole program or segment as recorded content</li></ul></li></ul>

**Figure 7a**

## User Command

## Device Response

Filter	<ul style="list-style-type: none"><li>▪ Present user interface for selecting filtering criteria</li><li>▪ Receive filtering criteria</li><li>▪ Retrieve metadata objects based on filtering criteria</li><li>▪ Assemble and display filtered guide</li></ul>
Find more like this	<ul style="list-style-type: none"><li>▪ Retrieve program and segment metadata having categories, keywords, actors or directors in common with a program or segment on which the cursor is located</li><li>▪ Display information about the retrieved programs and segments</li></ul> <p>OR</p> <ul style="list-style-type: none"><li>▪ Display user interface showing categories, keywords, actors and directors of the program or segment on which the cursor is located</li><li>▪ Receive input specifying which categories, keywords, actors and directors are of interest</li><li>▪ Retrieve program and segment metadata having the specified categories, keywords, actors or directors</li><li>▪ Display information about the retrieved programs and segments</li></ul>
Update preferences	<ul style="list-style-type: none"><li>▪ Update viewer preferences to reflect approval or disapproval of categories, keywords, actors or directors of a program or segment on which the cursor is located</li></ul> <p>OR</p> <ul style="list-style-type: none"><li>▪ Display user interface showing categories, keywords, actors and directors of the program or segment on which the cursor is located</li><li>▪ Receive input specifying which categories, keywords, actors and directors are approved or disapproved</li><li>▪ Update viewer preferences to reflect approval or disapproval of specified categories, keywords, actors or directors</li></ul>

**Figure 7b**

<b>Business Day:</b> Today's business news and information. Mon 9/22 8:00 pm - 9:00 pm										8:27 pm Ch 208	88
<b>Segment:</b> Earnings Reports: IBM, Dell, Cisco; analyst comments Start: 8:22 Duration: 8 min											
Mon 9/22		8:00 pm			8:30 pm			9:00 pm			86
204 SPRT		Sports Central						NFL Preview			
208 NEWS				Business Day						News	80
209 HOME		Design at Home						Decorating			
243 LA 13		Giants @ Dodgers						Postgame Show			
254 LA 24		Business Report			Today in Politics			Roundtable			
258 LA 28		Nexus						Natural World			
280 LA 50		Auto World			Sound Check			The Movie Critics			
288 LA 58		Collector's Hour						Investigation			

Figure 8a

<b>Business Day:</b> Today's business news and information. Mon 9/22 8:00 pm - 9:00 pm										8:27 pm Ch 208	88	
<b>Segment:</b> CEO Interview: Jeffrey Jones of Synthesco Start: 8:30 Duration: 16 min												90
Mon 9/22		8:00 pm				8:30 pm				9:00 pm		
204 SPRT		Sports Central						NFL Preview				80
208 NEWS				Business Day						News		
209 HOME		Design at Home						Decorating				
243 LA 13		Giants @ Dodgers						Postgame Show				
254 LA 24		Business Report				Today in Politics				Roundtable		
258 LA 28		Nexus						Natural World				
280 LA 50		Auto World				Sound Check				The Movie Critics		
288 LA 58		Collector's Hour						Investigation				

Figure 8b



<b>Business Day:</b> Today's business news and information. Mon 9/22 8:00 pm - 9:00 pm				8:27 pm Ch 208	88
<b>Segment:</b> Earnings Reports: IBM, Dell, Cisco; analyst comments Start: 8:22 Duration: 8 min					
Mon 9/22	8:00 pm	8:30 pm	9:00 pm		86
204 SPRT	Sports Central		NFL Preview		
208 NEWS	Business Day		News		80
				92	
209 HOME	Design at Home		Decorating		80
243 LA 13	Giants @ Dodgers		Postgame Show		
254 LA 24	Business Report	Today in Politics	Roundtable		84
258 LA 28	Nexus		Natural World		
280 LA 50	Auto World	Sound Check	The Movie Critics		82
288 LA 58	Collector's Hour		Investigation		

Figure 9a

<b>Business Day:</b> Today's business news and information. Mon 9/22 8:00 pm - 9:00 pm				8:27 pm Ch 208	88
<b>Segment:</b> CEO Interview: Jeffrey Jones of Synthesco Start: 8:30 Duration: 16 min					
Mon 9/22	8:00 pm	8:30 pm	9:00 pm		86
204 SPRT	Sports Central		NFL Preview		
208 NEWS	Business Day		News		80
				92	
209 HOME	Design at Home		Decorating		80
243 LA 13	Giants @ Dodgers		Postgame Show		
254 LA 24	Business Report	Today in Politics	Roundtable		84
258 LA 28	Nexus		Natural World		
280 LA 50	Auto World	Sound Check	The Movie Critics		82
288 LA 58	Collector's Hour		Investigation		

Figure 9b

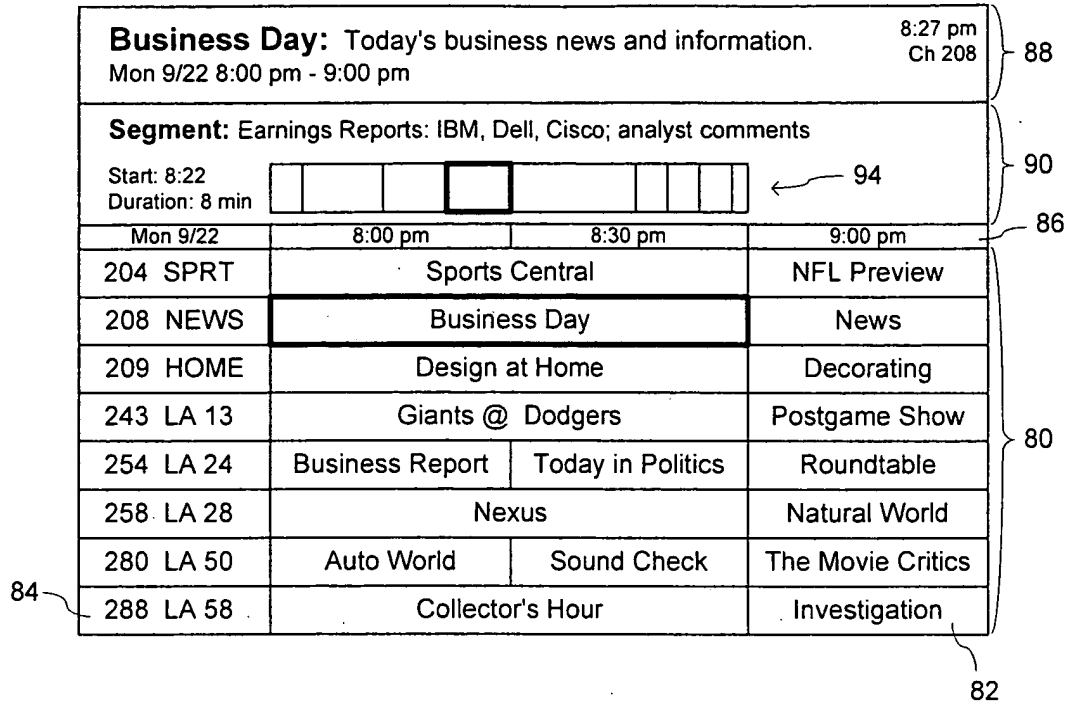


Figure 10a

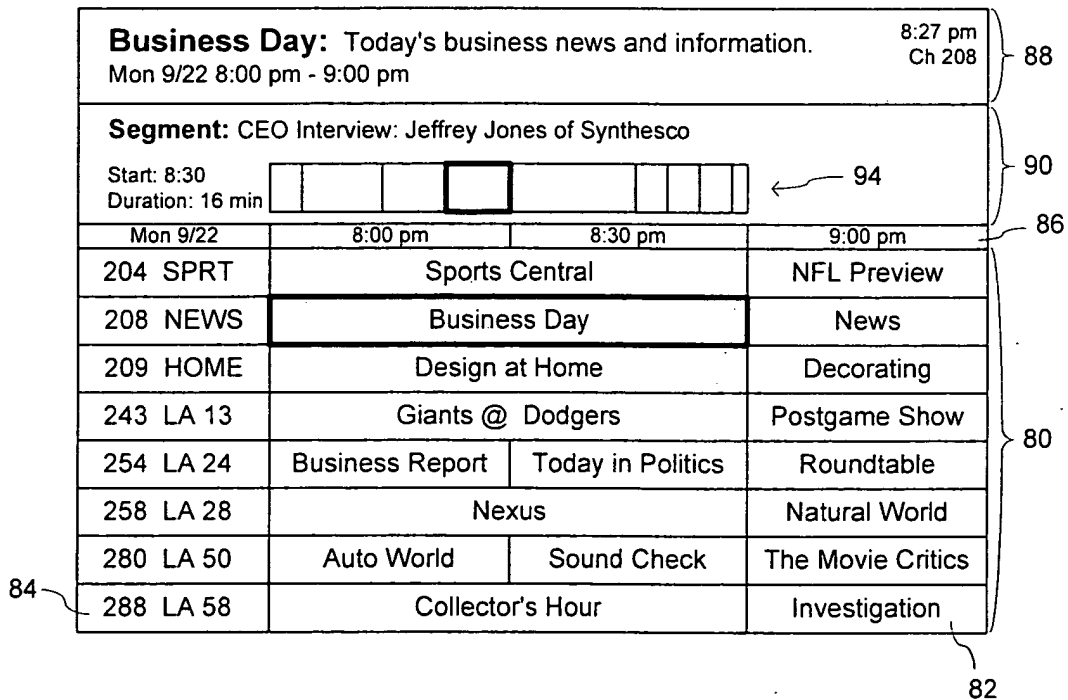


Figure 10b

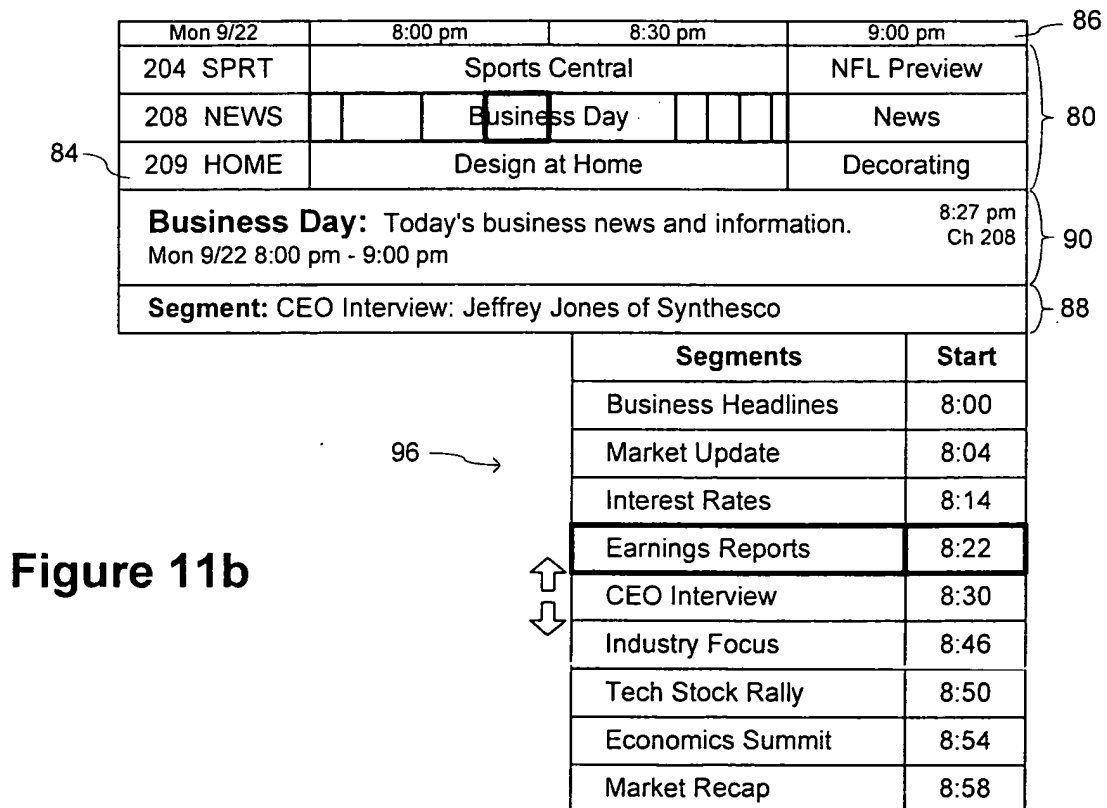
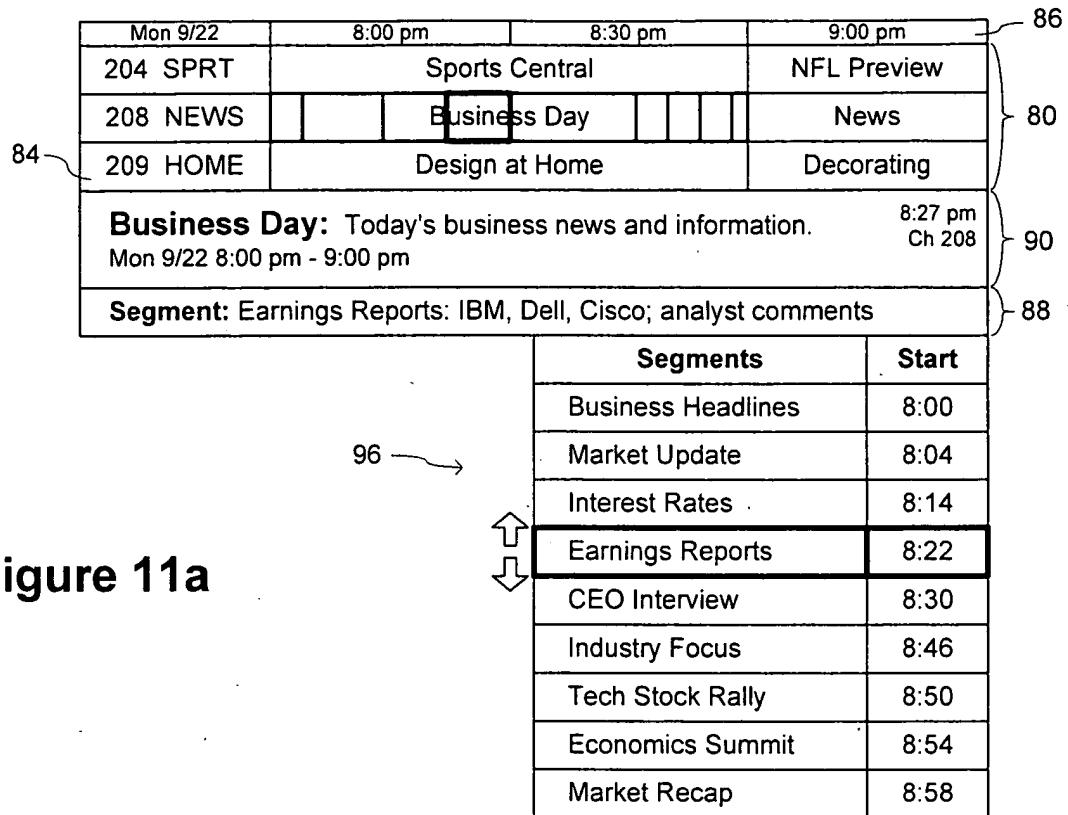
INTERACTIVE PROGRAM GUIDES PROVIDING PROGRAM SEGMENT  
INFORMATION

Inventors: Gil Gavriel DUDKIEWICZ et al.

Attorney: Ronald Coslick - 051448-0209

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Sheet 11 of 19



## User Command

## Device Response

Display banner

- Retrieve metadata objects for the current time period and channel
- Assemble and display the banner:
  - form segment fields
  - display cursor in the current segment field
  - display program description in the banner
  - display segment description in the banner

Move cursor

- Display cursor in new segment field
- display segment description of new segment

Select

- Schedule a reminder for the segment on which the cursor is located

Record

- Display option to record whole program or segment only and receive selection
  - if viewer selects record whole program, begin recording and store any buffered portion
  - if viewer selects record segment and segment is current, begin recording
  - if viewer selects record segment and segment is future, schedule recording
  - if viewer selects record segment and segment is buffered, store segment as recorded content

**Figure 12a**

User Command

Device Response

Find more like this

- Retrieve program and segment metadata having categories, keywords, actors or directors in common with a segment on which the cursor is located
  - Display information about the retrieved programs and segments
- OR
- Display user interface showing categories, keywords, actors and directors of the segment on which the cursor is located
  - Receive input specifying which categories, keywords, actors and directors are of interest
  - Retrieve program and segment metadata having the specified categories, keywords, actors or directors
  - Display information about the retrieved programs and segments

Update preferences

- Update viewer preferences to reflect approval or disapproval of categories, keywords, actors or directors of a segment on which the cursor is located
- OR
- Display user interface showing categories, keywords, actors and directors of the segment on which the cursor is located
  - Receive input specifying which categories, keywords, actors and directors are approved or disapproved
  - Update viewer preferences to reflect approval or disapproval of specified categories, keywords, actors or directors

**Figure 12b**

INTERACTIVE PROGRAM GUIDES PROVIDING PROGRAM SEGMENT  
INFORMATION

Inventors: Gil Gavriel DUDKIEWICZ et al.  
Attorney: Ronald Coslick - 051448-0209  
FOLEY & LARDNER - (310) 277-2223  
Sheet 14 of 19

Figure 13a

106

Segments	Start
Business Headlines	8:00
Market Update	8:04
Interest Rates	8:14
Earnings Reports	8:22
CEO Interview	8:30
Industry Focus	8:46
Tech Stock Rally	8:50
Economics Summit	8:54
Market Recap	8:58

108

100

CH: News 208  
Date: 09/22/2003  
Start: 8:00 pm  
Duration: 60 min

**Business Day:** Today's business news and information.

8:27 pm  
Ch 208

**Segment:** Earnings Reports: IBM, Dell, Cisco; analyst comments

Figure 13a

Figure 13b

106

Segments	Start
Business Headlines	8:00
Market Update	8:04
Interest Rates	8:14
Earnings Reports	8:22
CEO Interview	8:30
Industry Focus	8:46
Tech Stock Rally	8:50
Economics Summit	8:54
Market Recap	8:58

108

100


CH: News 208  
Date: 09/22/2003  
Start: 8:00 pm  
Duration: 60 min

**Business Day:** Today's business news and information.


8:27 pm  
Ch 208

**Segment:** Industry Focus: Growth returns to the travel industry

Figure 13b



<b>Business Day:</b> Today's business news and information. Mon. 9/22 8:00 pm - 9:00 pm		8:27 pm Ch 208	102
<b>Start</b>	<b>Segments</b>		
8:14	Interest Rates: Federal reserve meeting and analysis		
8:22	Earnings Reports: IBM, Dell, Cisco, analyst comments		
8:30	CEO Interview: Jeffrey Jones of Synthesco		106
			108

**Figure 14a**

<b>Business Day:</b> Today's business news and information. Mon. 9/22 8:00 pm - 9:00 pm		8:27 pm Ch 208	102
<b>Start</b>	<b>Segments</b>		
8:22	Earnings Reports: IBM, Dell, Cisco, analyst comments		
8:30	CEO Interview: Jeffrey Jones of Synthesco		
8:46	Industry Focus: Growth returns to the travel industry		106
			108

**Figure 14b**

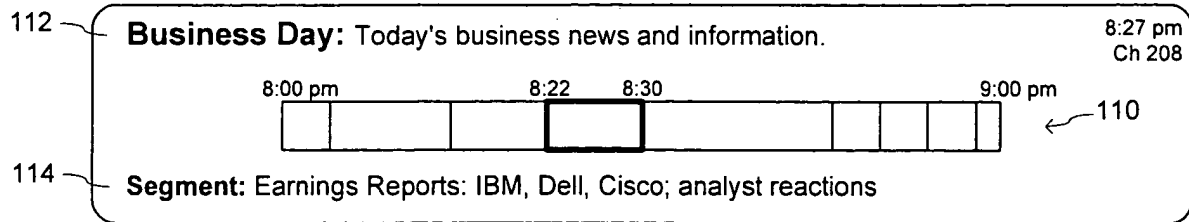


Figure 15a

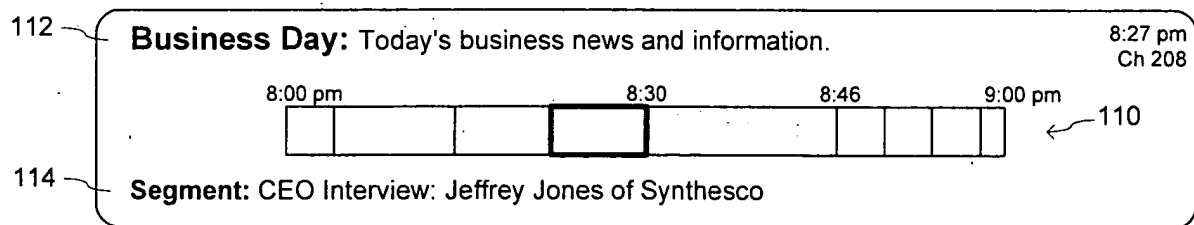


Figure 15b

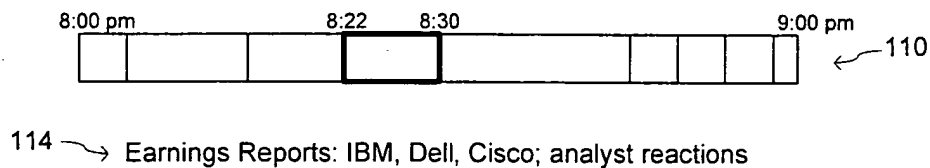


Figure 16a

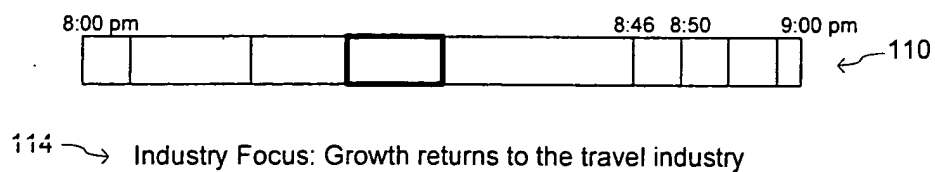


Figure 16b



88	<b>Business Day:</b> Today's business news and information. Mon 9/22 8:00 pm - 9:00 pm			8:27 pm Ch 208	
	<b>Segment:</b> Earnings Reports: IBM, Dell, Cisco; analyst comments Start: 8:22 Duration: 8 min			★★★ Earnings IBM	
90	Mon 9/22	8:00 pm	8:30 pm	9:00 pm	
	204 SPRT	Sports Central		NFL Preview	
	208 NEWS		Business Day		News
	209 HOME	Design at Home		Decorating	
	243 LA 13	Giants @ Dodgers		Postgame Show	
	254 LA 24	Business Report	Today in Politics	Roundtable	
	258 LA 28	Nexus		Natural World	
	280 LA 50	Auto World	Sound Check	The Movie Critics	
84	288 LA 58	Collector's Hour		Investigation	

Figure 17a

88	<b>Business Day:</b> Today's business news and information. Mon 9/22 8:00 pm - 9:00 pm			8:27 pm Ch 208	
	<b>Segment:</b> CEO Interview: Jeffrey Jones of Synthesco Start: 8:30 Duration: 16 min			★ Business	
90	Mon 9/22	8:00 pm	8:30 pm	9:00 pm	
	204 SPRT	Sports Central		NFL Preview	
	208 NEWS		Business Day		News
	209 HOME	Design at Home		Decorating	
	243 LA 13	Giants @ Dodgers		Postgame Show	
	254 LA 24	Business Report	Today in Politics	Roundtable	
	258 LA 28	Nexus		Natural World	
	280 LA 50	Auto World	Sound Check	The Movie Critics	
84	288 LA 58	Collector's Hour		Investigation	

Figure 17b

INTERACTIVE PROGRAM GUIDES PROVIDING PROGRAM SEGMENT  
INFORMATION

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106	Segments	Start	Interest	118	100	
	Peace Talks	9:00				
	Presidential Campaigns	9:03				
	Supreme Court Decision	9:09				
	Business	9:13				
	Sports	9:19				
	Entertainment	9:24				
	Weather	9:28				
CH: News 208		News: The day's news in thirty minutes.			9:14 pm Ch 208	102
Date: 09/22/2003						
Start: 8:00 pm		Segment: Business: market recap; tech rally; oil price spike				104
Duration: 60 min						

Figure 18

Find more like:  
Program: Business Day  
Segment: Earnings Reports

124 Find

Category:

☐ News
☒ Business
☐ Earnings
☒ Technology

Keyword:

☐ IBM
☒ Dell
☒ Cisco

Figure 19

134 Approve 136 Disapprove

Category: Keyword:

☐ News ☒ IBM 132

☐ Business ☒ Dell

☐ Earnings ☒ Cisco

☐ Technology

130

Figure 20a

Categories: 1 2 3 4 5 6 7 8 9 10

News

Business  138

Earnings

Technology

Keywords:

IBM ☒ Cisco ☒ 132

Dell ☒ 140 Update

130

Figure 20b